

Notice of Allowability	Application No.	Applicant(s)	
	10/663,422	SUMIHIRO, HIROSHI	
	Examiner	Art Unit	
	Ryan M. Stiglic	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments filed March 13, 2006.
2. ☒ The allowed claim(s) is/are 1-3 and 6-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. Claims 1-3 and 6-10 are pending and have been examined.
2. Claims 1-3 and 6-10 are allowed.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because applicant has provided an annotated copy of figure 5 but has failed to include a clean Replacement Sheet including figure 5. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Response to Arguments

4. Applicant's arguments, see pages 10-11, filed March 13, 2006, with respect to the rejection of claims 1 and 3 under 35 U.S.C. §102 have been fully considered and are persuasive. The rejection of claims 1 and 3 have been withdrawn.

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance:

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In regards to the previous rejection of claims 1-3 under 35 U.S.C. §102(e) as being anticipated by Kurth the Examiner has found applicant's arguments persuasive. Applicant argues, "Kurth does not disclose or suggest measuring a time interval from when the request is received by the arbiter" and "...does not disclose or suggest comparing the measured time interval to each of a first predetermined value and a second predetermined value (page 10)" to which the Examiner agrees. Kurth discloses a single timer, within a master agent, that determines if a request has been granted within a predetermined time period (col. 5, ll. 17-27). The timer however fails to compare the current value with a second predetermined value and thus does not increase priority based on a comparison of the second predetermined value. Insofar as Kurth fails to teach each and every limitation of independent claims 1 and 3, the rejection of claims 1 and 3 have been withdrawn. Claims 2 and 6-10 depend from independent claims 1 and 3 and are therefore allowable for the reasons listed above.

In regards to the previous rejection of claims 1-3 under 35 U.S.C. §102(b) as being anticipated by Nunziata the Examiner has found applicant's arguments persuasive. Applicant argues Nunziata, "...does not disclose or suggest assigning a higher priority of bus acquisition based on a result of the comparing (page 11)" to which the Examiner agrees. Nunziata discloses two counters (Fig. 2, 26 and 28) used to determine the priority of a requesting bus master. Timer 26 measures an interval from the issuance of a request from a first bus master. Upon expiration of timer 26 (i.e. comparing the value of the timer 26 to its maximum value) causes the bus master to have a higher priority. However, unlike applicant's invention which compares the interval to a second predetermined value to establish an even higher priority, Nunziata starts a second timer

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28 to effectively compare the interval to a second predetermined value to de-assert the previously establish high priority. Insofar as Nunziata does not assign a higher priority after the expiration of timer 28 claims 1 and 3 are allowable over the Nunziata reference. Claims 2 and 6-10 depend from independent claims 1 and 3 and are therefore allowable for the reasons listed above.

In regards to the previous rejection of claims 1-3 under 35 U.S.C. §102(b) as being anticipated by Hewitt the Examiner has found applicant's arguments persuasive. Hewitt discloses an "arbitration control unit therefore assigns a priority to each master based on how close its count value is to zero (applicant's remarks page 11)." Unlike applicant's invention Hewitt does not "disclose or suggest comparing a measured time interval to each of a predetermined value and a second predetermined value and does not disclose or suggest assigning a higher priority based on a result of the comparing (page 11 of applicant's remarks)." Insofar as Hewitt fails to teach each and every limitation of independent claims 1 and 3, the rejection of claims 1 and 3 have been withdrawn. Claims 2 and 6-10 depend from independent claims 1 and 3 and are therefore allowable for the reasons listed above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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6. In addition to the prior art previously made of record, the Examiner has located two U.S. Patent Documents relevant to applicant's invention:

- Chowdhuri discloses an arbitration circuit (Fig. 4, 400) with a plurality of request shaper circuits 404. Like applicant's invention the shaper circuit measures a time interval with counter 502 (Fig. 5) and compares the value (with equality comparator 504) to a predetermined value DP(n). However, unlike applicant's invention the request shaper circuit fails to compare the interval to a second predetermined value and thus does not assign a higher priority based on the comparison to a second predetermined value.
- Chae discloses an arbitration system using a short-term reference time unit and a long-term reference unit (similar to a first predetermined value and a second predetermined value) to determine the priority of requestors. Chae however fails to qualify as prior art due to applicant's perfected claim to foreign priority.

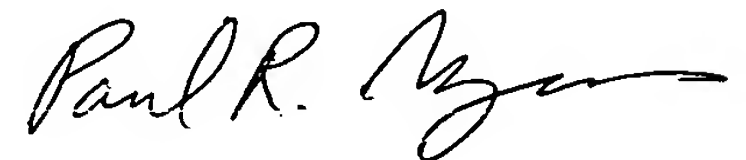
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M. Stiglic whose telephone number is 571.272.3641. The examiner can normally be reached on Monday - Friday (6:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571.272.3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RMS

**PAUL R. MYERS
PRIMARY EXAMINER**